



Section G

Spent Nuclear Fuel

PROJECT MANAGERS

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INTRODUCTION

The Spent Nuclear Fuel (SNF) Project consists of Project Baseline Summary (PBS) RL-RS03, Work Breakdown Structure (WBS) 3.2.3.

NOTE: Unless otherwise noted, all information contained herein is as of the end of January 2002.

Fiscal Year (FY) to date milestone performance (EA, HQ, and RL) shows no milestones due, one milestone on schedule, and one milestone forecasted late.

NOTABLE ACCOMPLISHMENTS

Fuel Movement Activities — During this reporting period, three Multi-Canister Overpacks (MCOs) containing 13.98 Metric Tons of Heavy Metal (MTHM) were shipped from K West (KW). Cumulatively to date, 43 MCOs containing 202.07 MTHMs have been shipped and the SNF Project is six working days ahead of schedule to move 720.1 MTHM by the end of FY 2002.

Facility Activities — Activities included:

- The Cold Vacuum Drying Facility (CVDF) has received approval by RL for the SAR change allowing the Proof of Dryness mode to be eliminated. This is expected to reduce the average processing time by an additional twelve to fifteen hours.

K Basins Construction Projects — Activities conducted during this reporting period included:

- Fabrication drawings and construction of the mockup test structure are underway for the Fuel Transfer System (FTS) lift tables, straddle carriers, and rails.
- K East (KE) and KW annex areas concrete pours over the unforeseen concrete chase are nearly complete.
- Initiated fabrication of FTS transport trailer.
- Submitted in-basin equipment 60 percent design of the Sludge Water System (SWS) in-basin equipment.

Sludge Handling Modification Activities — Activities included:

- Fabrication of the load cell-lifting handle, the load cell storage rack, work platform, sump pump supports, water addition stand, and electrical bails has been completed.
- Completed assessment of the auxiliary ten-ton crane at T Plant needed to support construction activities. Replaced and set bridge brake and hoist brakes, inspected the wire rope, and performed maintenance activities.

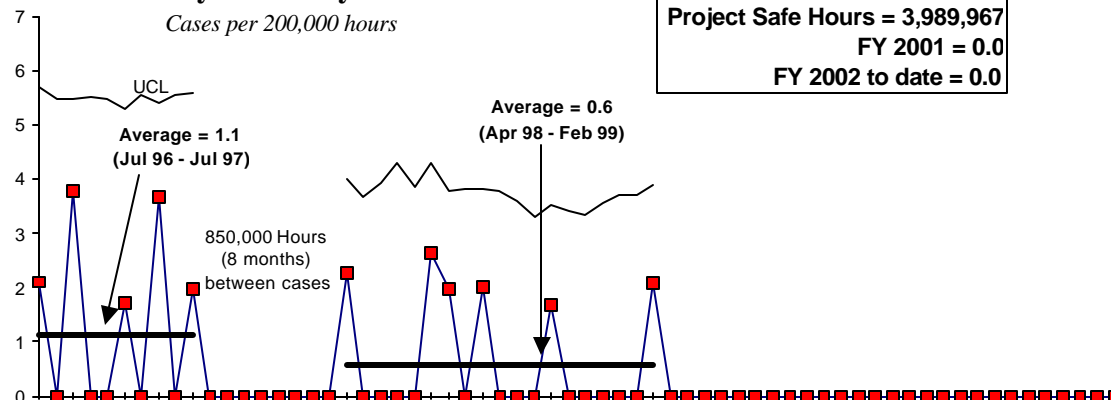
SAFETY

No Lost Away Workday injuries were reported within the SNF Project, thus allowing an achievement of nearly four million safe work hours by the end of January. This performance can be attributed to the effective implementation of the Integrated Safety Management (ISM) System core functions of management commitment and worker involvement.

SAFETY (CONTINUED)

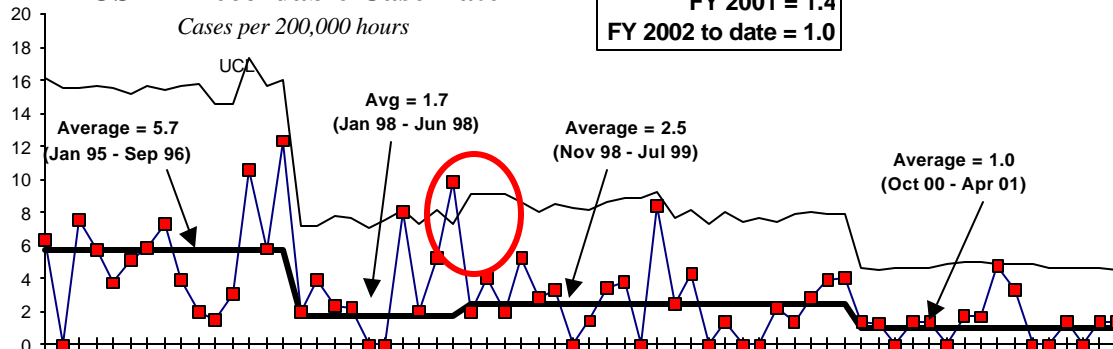
Spent Nuclear Fuels (SNF and Subs)

Lost Away Workday Case Rate



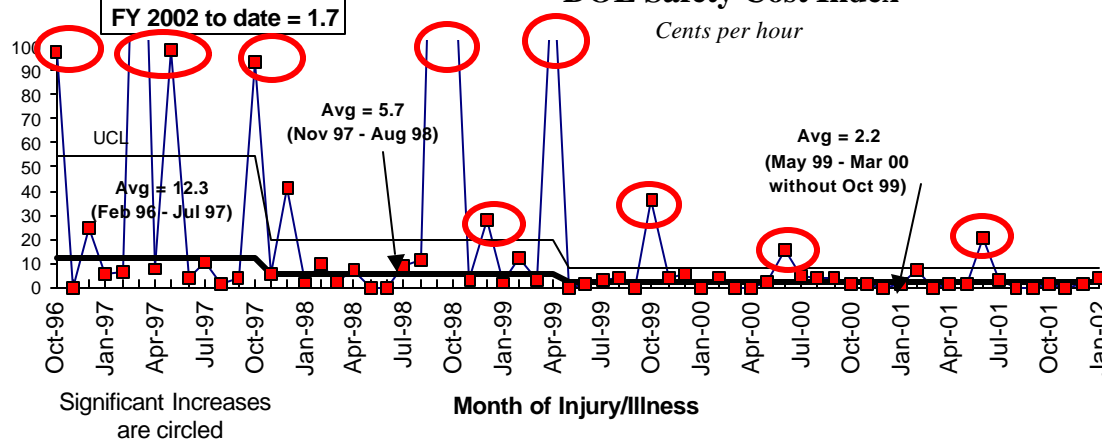
Green

OSHA Recordable Case Rate



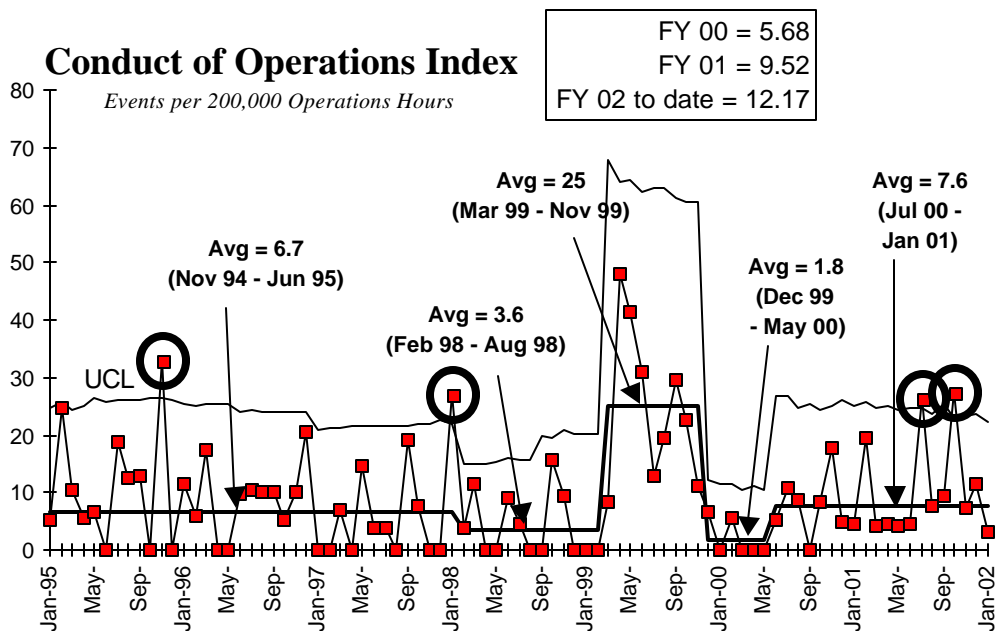
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DOE Safety Cost Index



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CONDUCT OF OPERATIONS



In an effort to raise the Project's focus on worker safety and conduct of operations, a weekly review of lessons learned and occurrence reports is conducted at the opening of the SNF Project senior staff meeting. The project continues to emphasize worker safety and conduct of operations with all project personnel. The SNF Project is updating the Conduct of Operations Applicability Matrix. Two additional assessments are underway: the first is on Interlocks and their potential impact, and the second on Conops. Both are being performed with off-project personnel. Corrective actions will be developed as appropriate.

BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

Cold Vacuum Drying Facility (CVDF) Fuel Processing / Production Improvements ^{3/4} The CVDF has implemented several improvements that have reduced processing times at CVDF from approximately 100 working hours per MCO to a current average of 77 working hours per MCO, 13 working hours less than the required target of 90 working hours. Options continue to be evaluated to ensure this average stays below the 90-working-hour target. The SAR change allowing the Proof of Dryness mode to be eliminated was approved by RL on January 25, 2002. This SAR change is expected to reduce the average processing time by an additional twelve to fifteen hours.

SNF Project Equipment Reliability — The SNF Project Availability Assessment Document (SNF-9273) was approved and issued. This assessment plan was presented to DOE-HQ EM-40 representatives for their review. The consensus of the DOE-HQ team was that it would provide a major step forward in solving the SNF Project equipment reliability if it was properly implemented. The weekly follow-up meetings for equipment reliability are continuing. Approximately 67 percent of spares identified are in procurement process, and 37 percent of those have been received.

Opportunities for Improvement

KW Fuel Processing / Production Improvements — KW has implemented many processing improvements including the installation of two manual process tables. KW improvements have resulted in about a 50 percent process time reduction. The current average processing time is 59.9 working hours, 14.9 working hours over the required target processing time of 45 working hours.

UPCOMING ACTIVITIES

Sludge and Water System (SWS) — Complete 100 percent design for fabrication of casks, container and transporter.

T Plant Construction — Receive delivery of the work platform to support construction activities in the T Plant process cells by February 16, 2002.

KE and KW FTS Facility Modifications — Complete KE and KW facility modifications for the FTS System by March 15, 2002.

KE and KW FTS Annexes — Substantially complete by April 1, 2002.

T Plant Fuel Shipment — Ship first T Plant fuel to CSB in May 2002.

FTS Construction — Complete construction of FTS by June 1, 2002.

200 Area ISA Pad Readiness Status — Receive initial Light Water Reactor fuel in August 2002.

MILESTONE ACHIEVEMENT

Number	Milestone Title	Type (TPA/DNFSB/PI)	Due Date	Actual Date	Forecast Date	Status/Comments
M-34-06-T01	"Initiate K West Basin Spent Nuclear Fuel Canister Cleaning Operations"	TPA	08/31/01		3/15/02	Delays resulted from design process improvements. No impact on operations expected.
M-34-16	Initiate Removal of K West Basin Spent Nuclear Fuel	ALL	11/30/00	12/7/00		Complete
M-34-29	Complete KE Basin and KW Basin Facility Modifications for AFTS Casks Transportation System	TPA	3/31/02		06/02/02	Late delivery of transfer system design and equipment, and unforeseen underground conditions at both basins.
M-34-12-T1	Complete Construction of Sludge and Water System	TPA	09/30/02		09/30/02	On Schedule
M-34-17	Initiate KE to KW Fuel Transfer	TPA	11/30/02		11/30/02	On Schedule
M-34-18A	Complete Removal of 190 MCOs of SNF from the KW Basin.	TPA/DNFSB	12/31/02		12/31/02	On Schedule
M-34-08	Initiate Full Scale KE Basin Sludge Removal	TPA/DNFSB	12/31/02		12/31/02	On Schedule
M-34-28	Complete Removal of 311 MCOs from the KW Basin	TPA	12/31/03		12/31/03	On Schedule
M-34-18B	Complete Removal of all K Basin SNF	ALL 3	7/31/04		7/31/04	On Schedule
M-34-10	Complete Sludge Removal from K Basins.	ALL 3	8/31/04		8/31/04	On Schedule
M-34-23	Start KE Water Removal	TPA	9/30/04		9/30/04	On Schedule
M-34-09-T01	Complete K Basins Rack & Canister Removal	PI	1/31/05		1/31/05	On Schedule
M-34-24	Complete KE Basin Water Removal	TPA	9/30/05		9/30/05	On Schedule
S06-06-006	Complete K Basin Water Removal	PI	4/30/06		4/30/06	On Schedule
M-34-22	Complete KW Basin Water Removal	TPA	8/31/06		8/31/06	On Schedule
S06-06-004	Complete Transition Activities for CVD and Other Facilities	PI	9/30/06		9/30/06	On Schedule
S06-06-005	Transfer of K Basins to the River Corridor Contractor	PI	9/30/06		9/30/06	On Schedule

NOTE: Above data includes all TPA/DNFSB/Performance Incentive milestones as included in the FH baseline, and provides Contract-to Date status.

PERFORMANCE OBJECTIVES

Move Fuel Away from the River

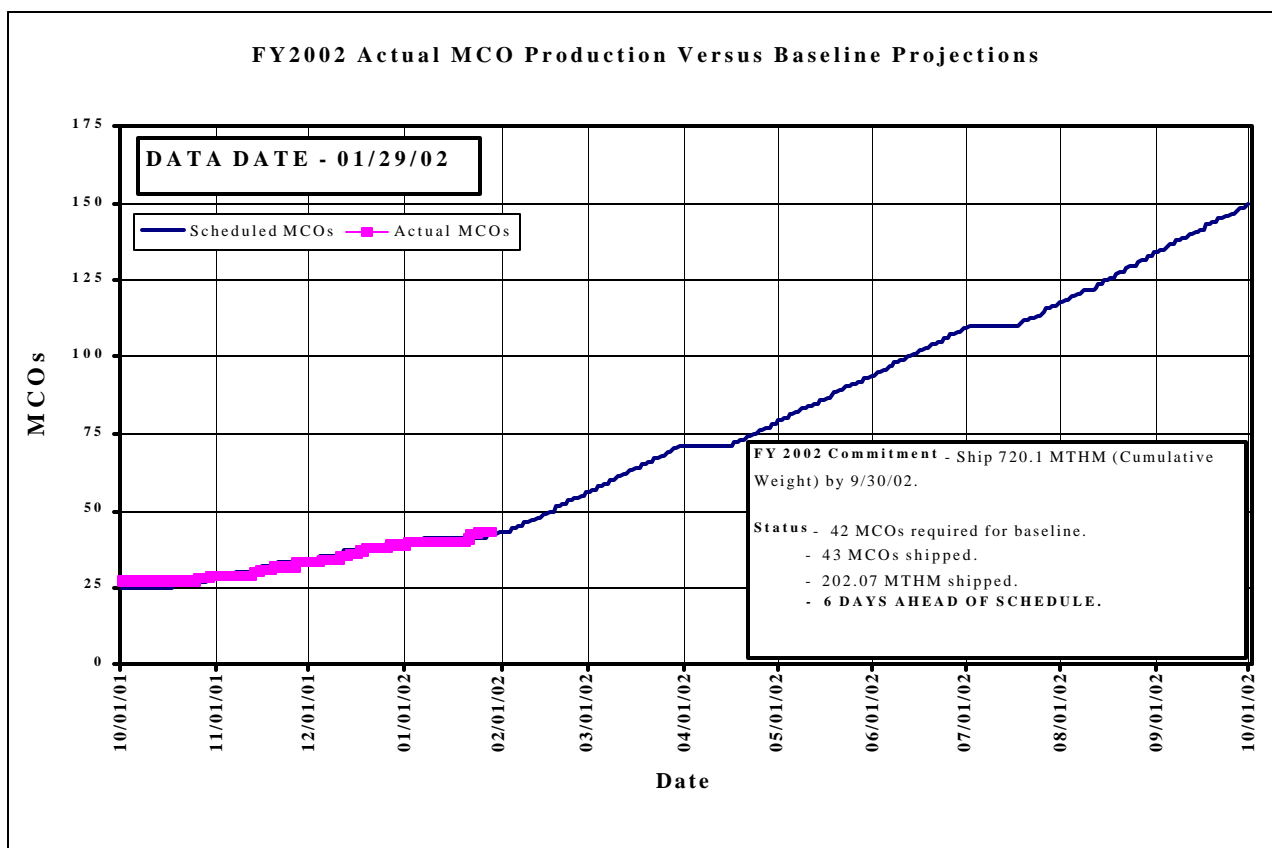
EXPECTATION: Remove spent fuel from K Basins

Move 720.1 Metric Tons Heavy Metal from KW Basin by end of FY 2002

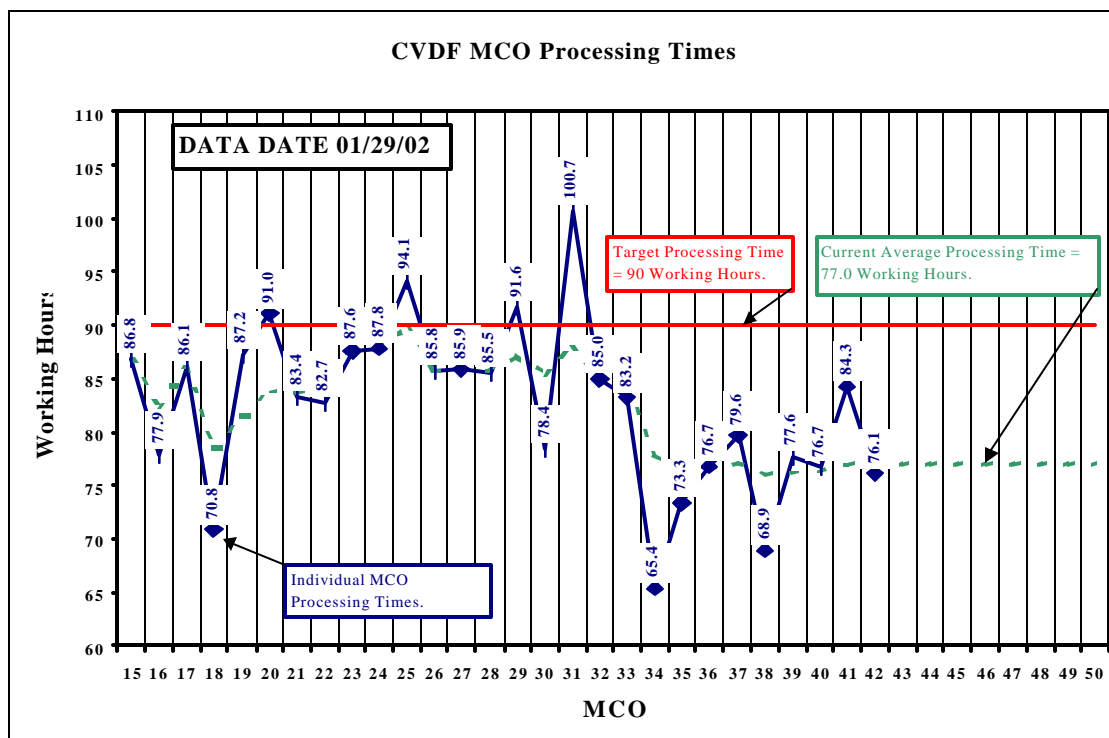
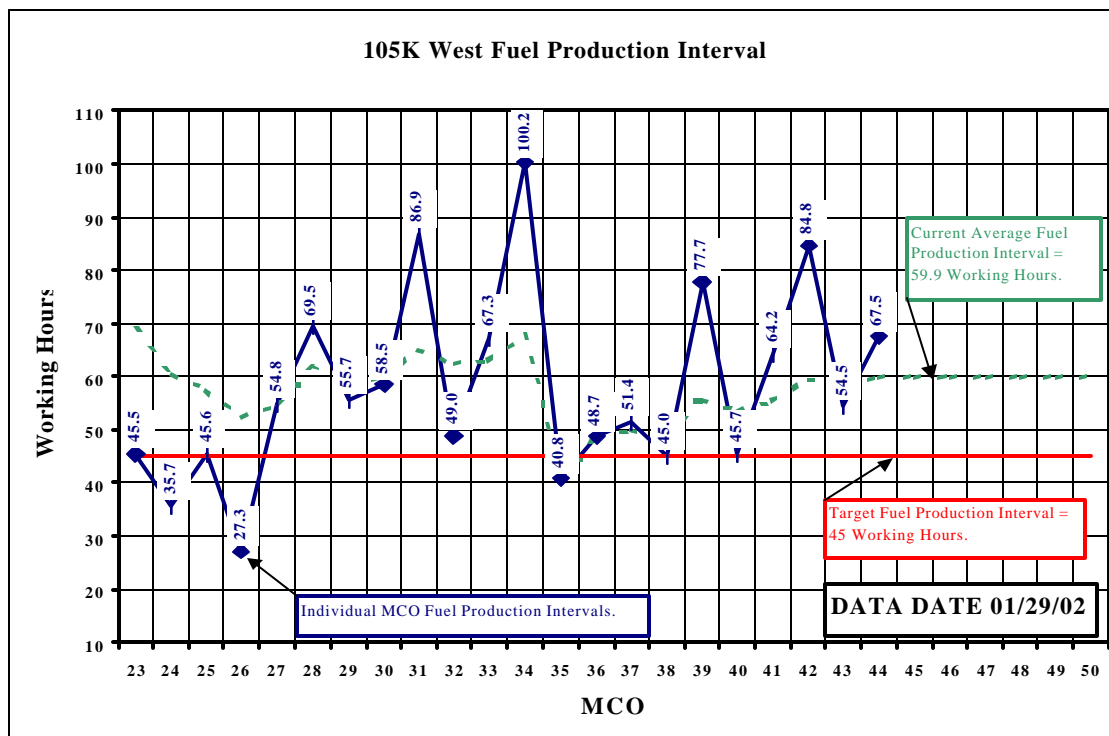
Status: A cumulative total of 43 MCOs containing 202.07 MTHM have been shipped. Currently six working days ahead (one MCO, 5.3 MTHM) ahead of the baseline schedule.

Complete construction on Fuel Transfer System (FTS) by March 30, 2002

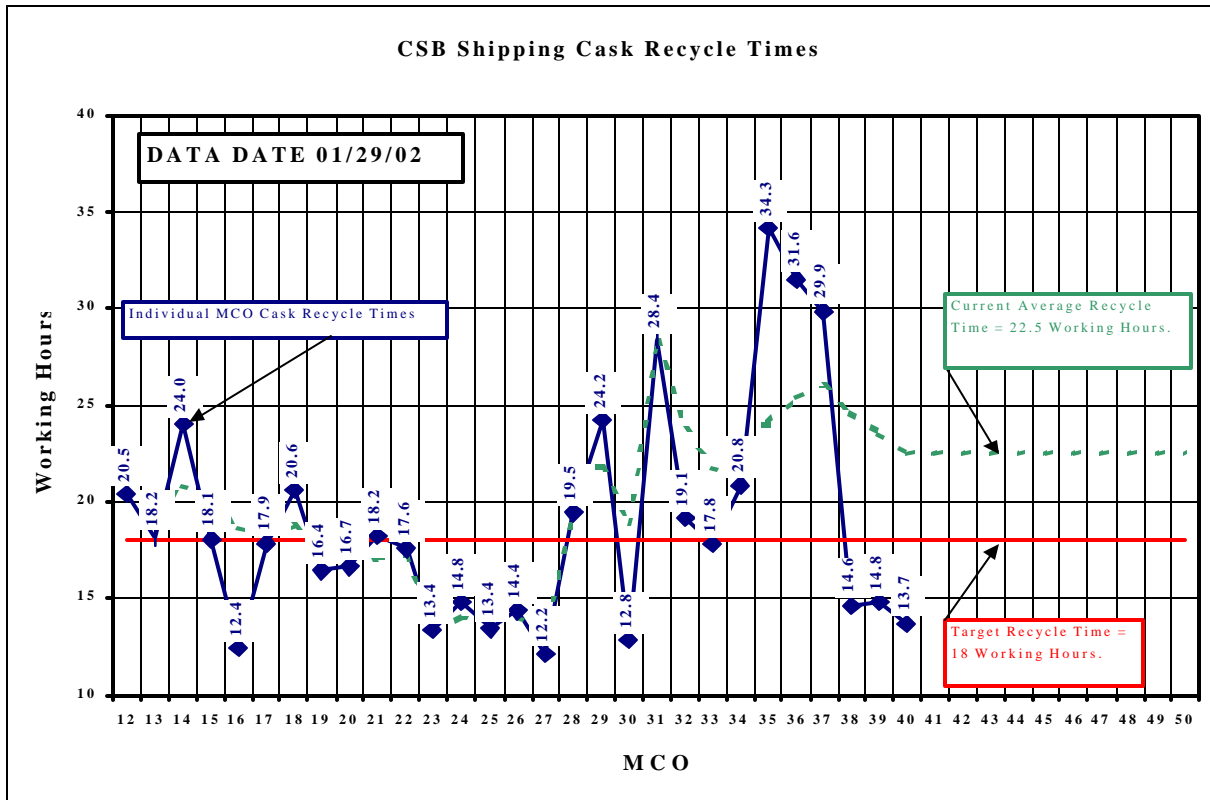
Status: On schedule.



PERFORMANCE OBJECTIVES (CONTINUED)



PERFORMANCE OBJECTIVES (CONTINUED)



SCHEDULE / COST PERFORMANCE – ALL FUND TYPES FY TO DATE STATUS (\$000)

		FYTD							
By PBS		BCWS	BCWP	ACWP	SV	%	CV	%	BAC
PBS RS03 WBS 3.2.3.1	SNF Project, 100 K Basins	\$ 35,018	35415	\$ 34,890	\$ 397	1%	\$ 525	1%	\$ 115,326
PBS RS03 WBS 3.2.3.2	Canister Storage Building (to2004)	\$ 3,737	\$ 3,862	\$ 2,837	\$ 125	3%	\$ 1,025	27%	\$ 11,132
PBS RS03 WBS 3.2.3.3	200 Intrim Storage Area (to2004)	\$ 659	\$ 412	\$ 451	\$ (247)	-37%	\$ (39)	-9%	\$ 2,935
PBS RS03 WBS 3.2.3.4	SNF Project Management and Support	\$ 13,033	\$ 13,042	\$ 12,444	\$ 9	0%	\$ 598	5%	\$ 41,200
Total		\$ 52,447	\$ 52,731	\$ 50,622	\$ 284	1%	\$ 2,109	4%	\$ 170,593

FY TO DATE SCHEDULE / COST PERFORMANCE

The SNF Project FYTD favorable schedule variance is primarily driven by making up progress on items that were behind schedule at the close of FY 2001. The favorable cost variance is primarily driven by under runs associated with new hires and under runs in the project direction account.

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

Schedule Variance Analysis: (+\$0.3M)

3.2.3.3 200 Area Intrim Storage (-\$.2M)

Description /Cause: The unfavorable 37 percent schedule variance is primarily due to progress being understated.

Impact: None to report.

Corrective Action: None required.

Cost Variance Analysis: (+\$2.1M)

3.2.3.2 Canister Storage Building (+\$1.0M)

Description/Cause: The favorable 27 percent cost variance is primarily due to management's decision to remain on the PQ shift schedule, instead of the 24/7s shift schedule.

Impact: None to report.

Corrective Action: None required.

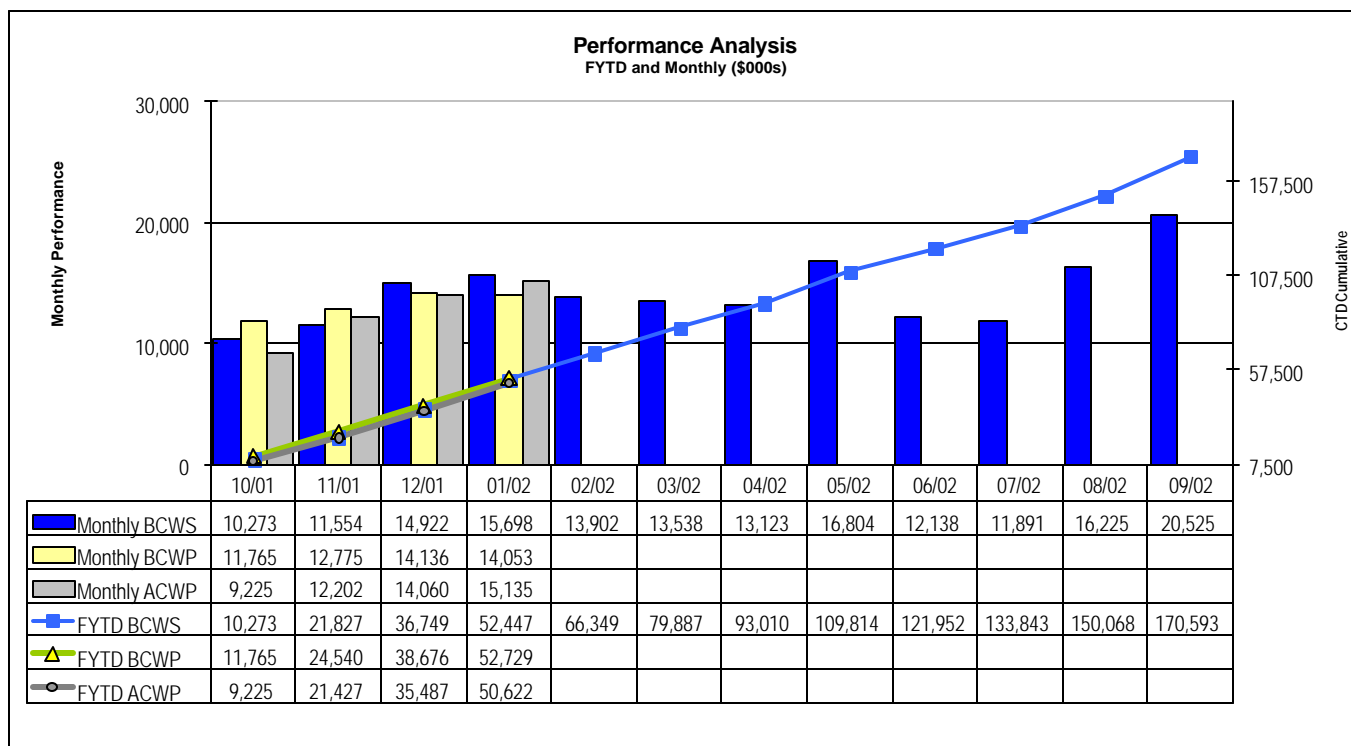
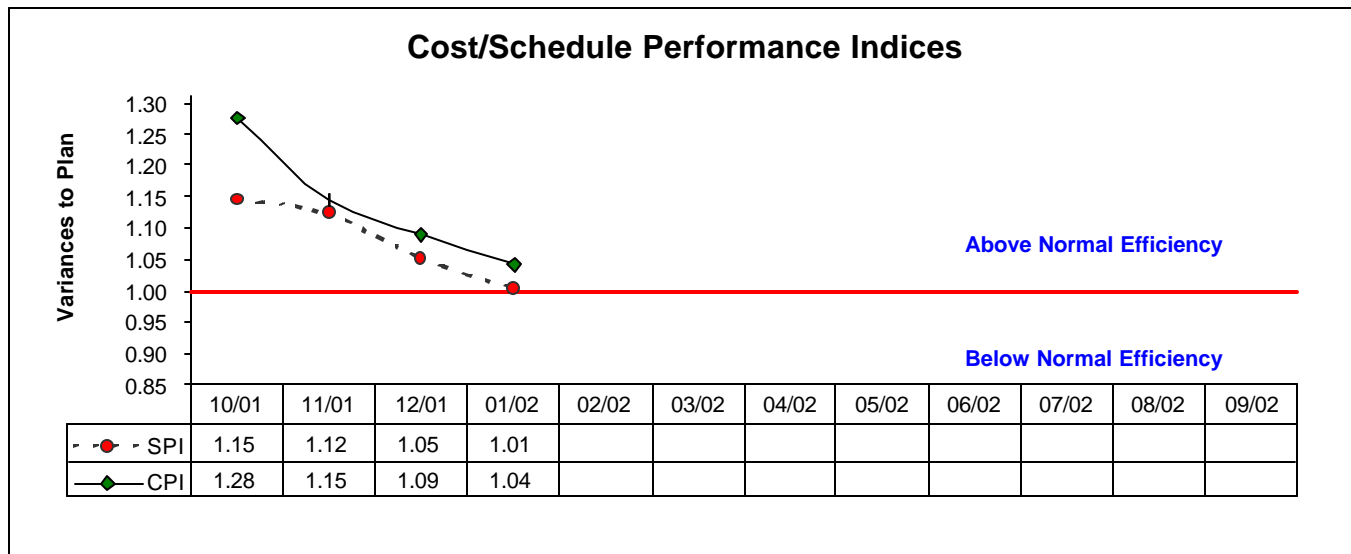
3.2.3.3 200 Intrim Storage Area (-\$0.04M)

Description/Cause: The unfavorable nine percent cost variance is primarily due to progress being understated.

Impact: None to report.

Corrective Action: None required.

Schedule / Cost Performance (Fiscal Year to Date and Monthly)



FUNDS MANAGEMENT – FY 2002 TO DATE FUNDS VS SPENDING FORECAST (\$000)

	FH Funds Reallocation	FYSF	Variance
3.2.3 Spent Nuclear Fuel			
RS03			
Project Completion - Operating	\$ 177,894	\$ 181,786	\$ (3,892)
Total	\$ 177,894	\$ 181,786	\$ (3,892)

January 31, 2002

ISSUES

Technical Issues

Issue: Pre-existing conditions and equipment fabrication at KE and KW have held up design and construction at the annexes.

Impact: Potential impact to Milestone M34-29, due March 31, 2002, and project cost.

Corrective Action: Completed vendor evaluations and selected vendor. At this time, there is a high probability of meeting April 30, 2002. Have incentivized vendor. Current date for receipt of equipment is April 17, 2002.

Issue: Nuclear Safety review of SWS.

Impact: KE canisters sludge cask, container and transporter fabrication.

Corrective Actions: Plan developed to meet project needs for fabrication of cask, container and transporter, as well as a plan for in basin design support to be reviewed and agreed with RL for path forward. Additional project management support has been added from the FH Project Operations Center and Nuclear Safety functions. This action is nearly complete and agreement on a path forward is agreed to with RL. No impact is expected on construction completion scheduled for September 30, 2002.

Issue: Equipment reliability continues to be a major concern for sustaining fuel movement.

Impact: Continued equipment failures may negatively impact meeting fuel movement commitments.

Corrective Action: On Schedule — (1) Prepare Phase I report draft — complete; (2) Complete phase II and initiate work package preparation, spare parts, and staging. Approximately 67 percent of spares identified are in procurement process, and 37 percent of those have been received.

Regulatory, External, and DOE Issues and DOE Requests

None to report.

BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

None to report.